CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO.

FOR
WEIMAR INSTITUTE, INC.
WEIMAR INSTITUTE WASTEWATER TREATMENT FACILITY
PLACER COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring of the wastewater treatment system. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

All wastewater samples should be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Process wastewater flow monitoring shall be conducted continuously using a flow meter and shall be reported in cumulative gallons per day.

Field test instruments (such as pH and dissolved oxygen) may be used provided that:

1. The operator is trained in the proper use of the instrument;
2. The instruments are field calibrated prior to each monitoring event;
3. Instruments are serviced and/or calibrated per the manufacturer's recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

SEPTIC TANK SOLIDS MONITORING

The Discharger shall monitor the septic tanks and report this information in the annual reports. Septic tanks shall be inspected annually as described below:

Parameter	Units	Type of Measurement	Minimum Inspection	Reporting Frequency
Sludge depth and scum thickness in the first compartment of each septic tank[1]	Feet	Staff Gauge	Annually	Annually
Distance between bottom of the scum layer and bottom of outlet device[1]	Inches	Staff Gauge	Annually	Annually
Distance between top of sludge layer and bottom of outlet device[1]	Inches	Staff Gauge	Annually	Annually

[1] The Discharger shall visually inspect the tanks for signs of damage, leakage, and/or deterioration

The Discharger shall retain records of each inspection, noting the date, measured readings and calculations. The Discharger will also record when cleaning is required, the condition of the tank, and the date that cleaning or repair occurred and by whom. Copies of the Liquid Waste Hauler manifests shall be retained for review as with any other record concerning documentation of compliance with the Order.

INFLUENT MONITORING

Influent monitoring shall be performed at the location where influent is discharged into the pond. Flows shall be recorded separately from each collection system, and shall also be added together to reflect the total inflow. Influent monitoring shall include at least the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	gpd	Continuous Meter[1,2]	Daily	Monthly

[1] A data logger on the dose chamber will be used to measure wastewater flows from the Main Campus collection system prior to discharge to Pond No. 1.
[2] A meter shall be placed in the collection line from the Academy Center and Duplexes collection system prior to discharge to Pond No. 1.

EFFLUENT MONITORING

Effluent samples shall be collected prior to discharge to the leachfields and shall be representative of the volume and nature of the discharge. Effluent monitoring shall include at least the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
BOD_5 [1]	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Standard Minerals[2]	mg/L	Grab	Annually	Annually

[1] 5-day Biochemical Oxygen Demand
[2] Standard Minerals shall include, at a minimum, the following elements and compounds: Boron, Calcium, Iron, Magnesium, Manganese, Sodium, Potassium, Chloride, Sulfate, Total Alkalinity (including alkalinity series), and Hardness

POND MONITORING

Samples shall be collected from an established sampling station located in an area that will provide a sample representative of the water in each of the ponds. Freeboard shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of each of the ponds shall include, at a minimum, the following:

Constituents	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Dissolved Oxygen[1,3]	mg/L	Grab	Weekly	Monthly
pH[3]	pH units	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly

Constituents	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Berm Seepage[2]	NA	Observation	Weekly	Monthly
Odors[4]	--	Observation	Weekly	Monthly

[1] Samples shall be collected at a depth of one foot, opposite the inlet. Samples shall be collected between 0700 and 0900 hours.
[2] Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing water is found, then a sample shall be collected and tested for total coliform organisms and total dissolved solids sample shall be collected and tested for total dissolved solids.
[3] Handheld meter may be used.
[4] The presence of strong or unusual odors shall be reported.

LEACHFIELD AREA MONITORING

The Discharger shall conduct a visual inspection of the leachfields on a **weekly basis**. Results shall be recorded and submitted with the monthly monitoring reports. Photocopies of entries into an operator's log are acceptable. Evidence of surfacing wastewater, erosion, field saturation, runoff, or the presence of nuisance conditions shall be noted in the report. If surfacing water is found, then a sample shall be collected and tested for total coliform organisms and total dissolved solids. In addition to the visual inspections, monitoring of the leachfields shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Application Rate[1]	gal/acre•day	Calculated	Monthly	Monthly
Leachline Riser Inspection[2]	Inches	Measurement	Monthly	Monthly
Leachline in Use[3]	Observation	Observation	Daily	Monthly

[1] The application rate for each of the leachfields.
[2] The Discharger shall measure and record the distance from the surface of the liquid in the observation port to the surface of the ground in the each active lateral. In addition, the Discharger shall maintain a daily record of the zones that are active.
[3] Report the leachline and zone to which flows are directed each day.

SLUDGE MONITORING

In accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, a composite sample of sludge shall be collected when removed from the effluent storage reservoirs and tested for the following metals: Cadmium, Copper, Nickel, Chromium, Lead, and Zinc.
Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

GROUNDWATER MONITORING

The following program shall commence beginning with the second quarter 2006. Prior to construction and/or sampling of any additional groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below. Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged of at least three well volumes until temperature, pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Samples shall be collected using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency[5]
Depth to Groundwater	0.01 Feet	Measurement	Quarterly	Quarterly
Groundwater Elevation[1]	0.01 Feet	Calculated	Quarterly	Quarterly
Gradient	Feet/Feet	Calculated	Quarterly	Quarterly
Gradient Direction	Degrees	Calculated	Quarterly	Quarterly
Total Coliform Organisms[2]	MPN/100ml[3]	Grab	Quarterly	Quarterly
pH	pH Units	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Kjeldahl nitrogen	mg/L	Grab	Quarterly	Quarterly
Standard Minerals[4]	mg/L	Grab	Annually	Annually

[1] Groundwater elevation shall be based on depth-to-water using a surveyed measuring point elevation on the well and a surveyed reference elevation.
[2] Using a minimum of 15 tubes or three dilutions
[3] Most probable number per 100 ml.
[4] Standard Minerals shall include, at a minimum, the following elements and compounds: Boron, Calcium, Iron, Magnesium, Manganese, Sodium, Potassium, Chloride, Sulfate, Total Alkalinity (including alkalinity series), and Hardness.
[5] Beginning with the second quarter 2006.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, leachfield, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed/stamped by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the reports shall include:

1. Results of influent, effluent, pond, and leachfield area monitoring;

2. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;

3. If requested by staff, copies of laboratory analytical report(s); and

4. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Quarterly Report

Beginning with the second quarter 2006, the Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarterly report is due by May 1st) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of the groundwater monitoring;

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;

3. Calculation of groundwater elevations and discussion of seasonal trends if any;

4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal tends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);

5. A comparison of the monitoring data to the groundwater limitations and an explanation of any violation of those requirements;

6. Summary data tables of historical and current water table elevations and analytical results;

7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and

8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

An Annual Report shall be prepared as the December monthly monitoring report. The Annual Report will include all monitoring data required in the monthly and quarterly schedule. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular monthly and quarterly monitoring report for the last month and quarter of the year, respectively;

2. If requested by staff, tabular and graphical summaries of all data collected during the year;

3. Results of the annual effluent and groundwater monitoring;

4. A description of activity to control vegetation in the leachfield areas;

5. Annual summary of the septic tank inspections for the year, including the number of tanks which were cleaned and from compilation of Liquid Waste Hauler Manifests, the volumes of waste removed from the tanks;

6. A statement of when the O&M Manual was last reviewed for adequacy, and a description of any changes made during the year;

7. A description of the annual evaluation of effluent distribution and adjustments made, if any;

8. A summary of the inspections, repair activities, and pipeline replacements which were performed on the effluent collection system during the previous year;

9. A statement regarding whether the flow meter was calibrated during the year; and

10. A discussion of any compliance issues or violations and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.
The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

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